***Before and After Tax Income and Inequality in Montana from 1997 Through 2014***

***An Examination of the Distributional Impacts of Income and Payroll Taxes***

Aaron McNay

*State and federal income tax systems have significant impacts on the distribution of income across taxpayer households. This paper uses individual income tax records to examine the distributional impacts state and federal payroll and income taxes have on the distribution of income within the state of Montana. The estimated impacts of the state's income tax are available for tax years 1997 through 2014, while federal income and payroll tax estimates are available for tax years 2004 through 2014. Based on tax records, Montana's income tax system reduced the share of total income reported by the top 50 percent of Montana full-time resident taxpayer households from 87 percent before taxes to 86.7 percent after taxes in 2014. For the same year, the federal income and payroll taxes changed the share of total income reported by the top 50 percent of taxpayer households from 87 percent to 85 percent and 87.2 percent respectively.*

*Keywords: Personal Income, Income Inequality, State Income Taxation*

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## I. INTRODUCTION

The distribution of market income has changed in the United States over the past 35 years, with a growing portion of income reported by households in the top 10 and 1 percent of the income distribution. In addition, there is evidence that this distributional change has also been occurring at the state level (Frank, 2014) and Montana specifically (McNay, 2015). However, market incomes may not provide an accurate representation of final income differences between high and low income households. The federal government currently places a progressive tax on incomes, as well as payroll taxes on wage and self-employment income. Both of these alter the after-tax distribution of income. The State of Montana also places a progressive tax on incomes. As a result, the distribution of after-tax incomes in Montana is going to be different from the distribution of market incomes.

This paper uses individual income tax records of Montana's full-year residents to estimate the distributional impacts of Montana's and the United States' income and payroll taxes.[1] Before-tax income estimates are based on market and non-market income, such as Social Security and Unemployment Insurance income. Before-tax income also only includes the taxable portions of income, such as taxable social security income and retirement income. Montana income tax liability estimates are based on the tax liability reported on each individual income tax return and are available for tax years 1997 through 2014. Federal income and payroll tax liability estimates are based on federal tax revenue models and Montana income tax return data. Federal estimates are available for tax years 2004 through 2014. Unlike estimates that use Current Population Survey data, this paper includes households with negative before-tax income.

[1] The distributional impacts of other taxes, such as property taxes and sales taxes, were not examined in this paper.

For Montana residents, the federal income tax moderately reduces the amount of income inequality within the state. Before taxes, households in the state's top income decile reported approximately 41.25 percent of before-tax income in 2014. Federal income taxes reduce the share of reported income by nearly 4.09 percentage points. Montana's income tax also reduces the amount of after-tax income inequality in the state. However, the distributional impacts of the state income tax is smaller than the federal impacts, with a 0.44 percentage point reduction in the top income decile's share of income. Federal payroll taxes actually increase after-tax income inequality. Payroll taxes increased the share of income reported by the top income decile by 0.43 percentage points. Overall, federal and state income and payroll taxes reduce the amount of income inequality that exists between Montana's residents, with a combined reduction in the share of income reported by the top income decile from 41.25 percent before taxes to 36.7 percent.

## II. OTHER INCOME DISTRIBUTION AND TAX IMPACT ESTIMATES

There has been considerable work done examining the distribution of before-tax and market incomes in the United States and within each individual state. Using federal individual income tax returns, Piketty and Saez (2003, 2007) estimated the proportion of income reported by households in the top income decile in the United States since 1913. The authors have continued to release updated numbers for the United States as a whole, with top income share estimates expanded to include tax years up to 2014(Alvaredo, Atkinson, Piketty and Saez (2015)). Based on their estimates, the share of income earned by households in the top income decile began increasing in the 1980s, reaching a high point of 50.6 percent in 2012.

Using the same federal income tax data, state level estimates of the top income share were also generated. Frank (2009) used income tax data to generate income inequality estimates for the

top income decile for 48 states for tax years 1945 through 2004. Additional updates to the data expanded the number of examined states to 50 and increased the examined years to 1916 through 2013 (Frank 2014, Frank, Sommeiller, Price and Saez, 2015). Based on their estimates, the share of market income reported by Montana's top income decile increased from about 30 percent before 1980 to 41.8 percent in the 2000s and 43.2 percent in 2013.

While each of these data sources provide estimates of the amount of income reported by households in the top income decile, they do not provide any information on the final distribution of income in the United State and Montana. State and federal taxes both have the potential to affect the distribution of after-tax income available to households. As a result, it is difficult to know if any changes should be made to tax policy based on these estimates, as they provide no information on what tax systems are already doing to change the distribution of household income.

With estimates going back to 1986, the U.S. Census Bureau currently provides income share, tax rate, and tax estimates for households in the top half of the income distribution with positive adjusted gross incomes (AGI). According to the Census Bureau's estimates, households in the top income decile reported 43.2 percent of AGI in the United States during 2009. This is an increase of 8 percentage points from their 1986 level of 35.1. At the same time, the U.S. Census Bureau estimates that households in the top income decile accounted for 70.5 percent of federal income tax liabilities in 2009, which is significantly higher than the 54.7 percent for 1986.

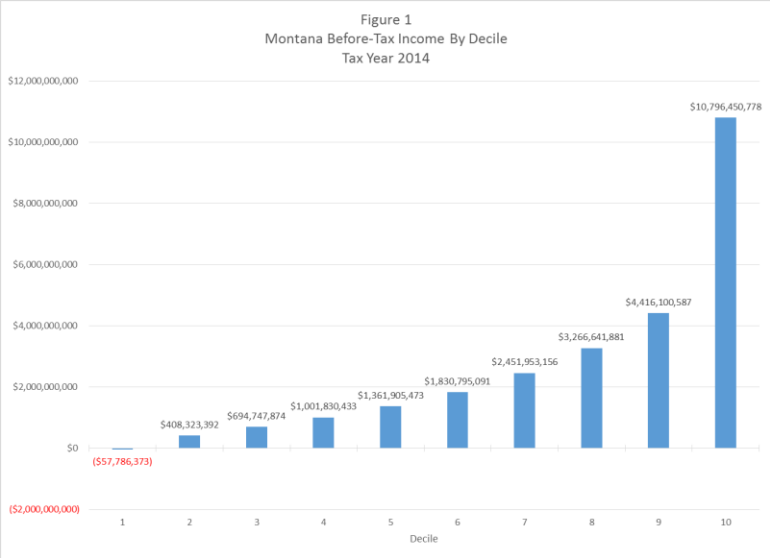
The Congressional Budget Office (CBO) also generates estimates of before-tax and after-tax income distribution estimates for the United States' population. Using data from Census Bureau's Current Population Survey (CPS) and the Internal Revenue Service's Statistics of Income (SOI), the CBO estimates both the market income of households, as well as their total federal tax

liability. The CBO has income and federal tax liability estimates for tax years 1979 through 2011 (CBO (2014)). The CBO estimated that all households paid an average effective federal tax rate of 17.6 percent in 2011. For households in the top 20 and 1 percent of the income distribution, the average effective rate was 23.4 and 29 percent respectively. Households in the bottom 20 percent paid an average effective rate of 1.9 percent. The CBO results show that the overall federal tax system is progressive, with average tax rates increasing as household income increases.

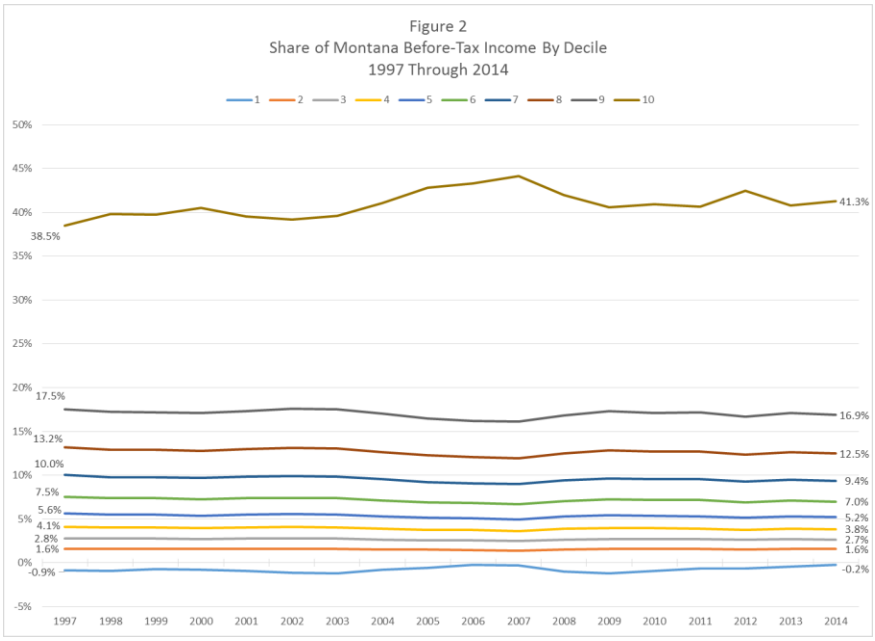
The two data sources described previously only provide after-tax distributional estimates for the United States as a whole. Cooper, Lutz and Palumbo (2015) used CPS data and the National Bureau of Economic Research's TAXSIM model to estimate the combined distributive impact of each state's and federal government's tax system. Overall, they estimated that the tax code substantially reduces income inequality in all states. For Montana, they estimated that federal taxes reduced the share of income reported by households in the top income decile from 46.9 to 34 percent. State level taxes also reduced the share of after-tax income by 2.4 percentage points, for a total reduction in the top income decile's share of income from 46.9 to 31.7 percent.

## III. MONTANA INFLATION-ADJUSTED BEFORE-TAX INCOME DISTRIBUTION

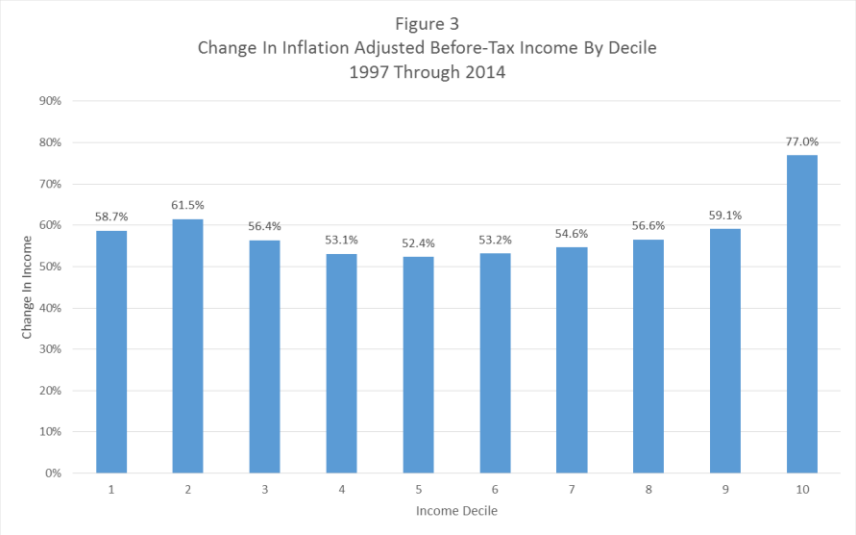
Based on state individual income tax return data for full-time state residents, before-tax income in Montana is unequally distributed across taxpayer households. In tax year 2014, residents of Montana reported approximately $26.17 billion of before-tax income. Approximately $22.8 billion, or 87 percent, of this income was reported by taxpayer households in the top half of the income distribution for the year (Figure 1). Households in the bottom 50 percent of the income distribution reported $3.4 billion in total before-tax income, which comprised 13 percent of the total before-tax income for the year.




The distribution of before-tax income in Montana has been becoming more unequal over time. In 1997, the share of before-tax income reported by households in the top income decile was 38.5 percent. By 2014, the top decile's share of before-tax income increased to 41.3 percent (Figure 2). Over the same period, the share of income reported by households in the remaining top half of the income distribution decreased from 48.2 percent to 45.7 percent. Households in the bottom half of the income distribution also had their share of before-tax income decrease, moving from 13.3 percent in 1997 to 13 percent in 2014.




The increasing concentration of before-tax income in the top decile is primarily due to above average increases in before-tax income for the households in the decile. After adjusting for inflation, households in the top income decile had the largest percentage increase in before-tax income, with an increase of 77 percent from 1997 to 2014 (Figure 3). Households in the second income decile had the second largest increase in before-tax income, with an increase of 61.5 percent. The before-tax incomes for households in the fifth income decile increased the least of all deciles during the seventeen years, with an increase of only 52.4 percent.




## IV. MONTANA INFLATION-ADJUSTED AFTER-TAX INCOME DISTRIBUTION

The distribution of after-tax income in the United States is impacted by several different tax types. This paper examines three of the tax types: state income taxes, federal income taxes and federal payroll taxes. For state income taxes, the estimated income impact is based on reported tax liabilities for each taxpayer household after non-refundable and refundable tax credits. The estimated impact to after-tax incomes for the federal income tax is based on estimated federal tax liability estimates for each taxpayer household based on information reported on their Montana individual income tax return. The federal income tax estimate includes refundable tax credits when sufficient information is available to estimate their size, such as the Earned Income and Making Work Pay tax credits, but excludes other federal tax credits when insufficient information is available, such as the American Opportunity tax credit. Finally, federal payroll tax estimates were developed based on each individual's self-employment payroll deduction and reported wage and salary amounts. The payroll tax estimate only includes the employee's portion of the payroll tax.

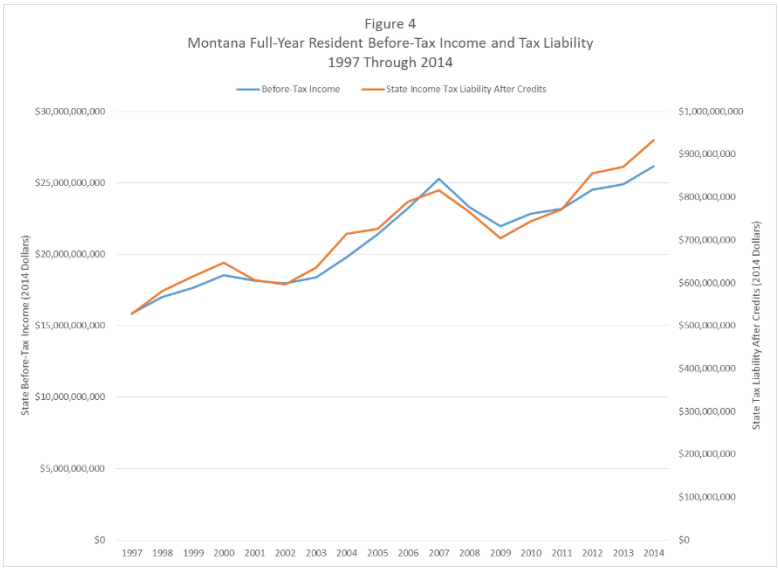
## A. Montana Income Tax

Like forty other states, the State of Montana currently imposes a broad-based tax on the incomes of individuals within the state. Montana's income tax currently has a progressive rate structure with seven tax rates. For tax year 2014, the state's top rate of 6.9 percent applied to before-tax income above $17,100. The state also allows individuals to deduct and exempt portions of their income from the tax. Taxpayers could claim a standard deduction between $1,940 and $4,370 for single filers or $3,880 and $8,740 for married and head of household filers in tax year 2014.[2] Taxpayers can also claim an itemized deduction in lieu of the standard deduction if the taxpayer chooses to do so. Income exemptions are also available for each taxpayer, spouse and dependent claimed by the taxpayer for tax year.[3] The exemption amount was set at $2,330 for tax year 2014 and is adjusted each year for inflation.

Montana's income tax also allows taxpayers to claim refundable and non-refundable tax credits, which reduce the tax liability of the taxpayer claiming the credit. Montana's largest tax credit is its 2 percent capital gains tax credit.[4] Full-year resident taxpayers claimed more than $38.9 million in capital gains credits in tax year 2014. The next largest tax credit was the state's credit for the income taxes paid to other states, with approximately $31.2 million in credits claimed. Excluding the capital gains credit, $46.2 million in non-refundable credits were claimed by full-year resident taxpayers, and $7.5 million refundable credits were claimed by taxpayers on their income tax returns.

[2] Montana's standard deduction is equal to 20 percent of each taxpayer household's Montana adjusted gross income. Minimum and maximum deduction amounts are set for each household type.
[3] Additional income exemptions can also be claimed for taxpayers if they, or their spouse, is blind or at least 65 years old. An additional exemption is also available for each disabled dependent.
[4] The 2 percent capital gains credit effectively lowers the top marginal tax rate from 6.9 percent to 4.9 percent.

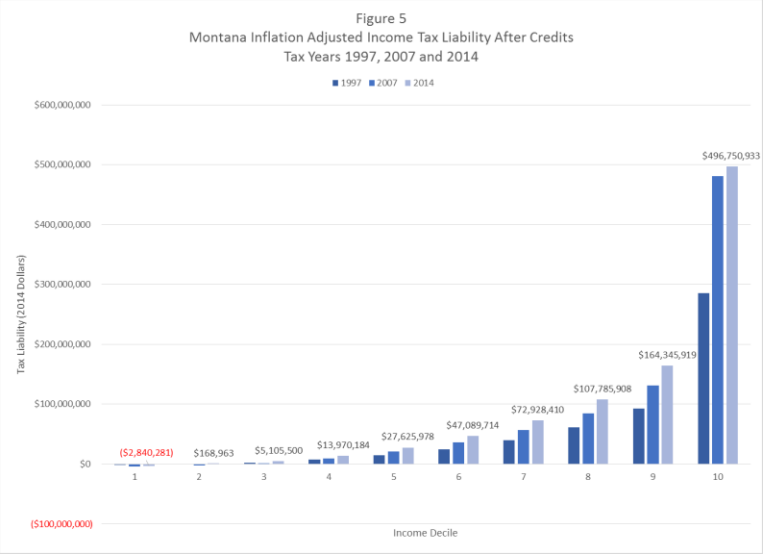
Over the past 17 years, the combined before-tax income of Montana's full-year residents has increased most years, even after adjusting for inflation. From 1997 to 2007, the combined inflation-adjusted before-tax income of full-year resident taxpayers in Montana increased from $15.85 billion to $25.27 billion, an increase of nearly 60 percent (Figure 4). Starting in 2008, however, the national recession began to affect state residents. Before-tax incomes for state residents began to decline in 2008, reaching a low of $21.9 billion in 2009. Incomes began increasing again in 2010 and returned to their pre-recession levels in 2014, with incomes reaching $26.17 billion for the year. From tax year 2007 to 2014, the combined before-tax incomes of full-year residents increased by 3.57 percent.




The tax liability of full-year resident taxpayers follows a similar pattern as before-tax incomes. From 1997 to 2007, the tax liability of Montana's full-year residents increased for most years, reaching $815.4 million in 2007. By 2010, the tax liability of residents had decreased to $704.2 million, 13.6 percent below its 2007 level. The large decrease in tax liability is due to the national recession and its impact on incomes in Montana. The tax liability of Montana's residents returned to their pre-recession levels in 2012, two years before before-tax incomes returned to their

pre-recession level. The combined tax liabilities of residents was $932.9 million in tax year 2014, an increase of 14.4 percent above its pre-recession level in 2007.

When broken down by income deciles, the tax liability of households follows a pattern similar to the distribution of before-tax income. Households in the first income decile had the smallest income tax liability of tax year 2014, with a combined liability of -$2.8 million (Figure 5). The negative tax liability is due to the availability of refundable tax credits. The top income decile had the largest state income tax liability, with a combined liability of nearly $497 million in 2014. Due to the state's progressive income tax structure, households in the top income decile comprised approximately 53.2 percent of Montana's income tax liability, even though the decile reported only 41.3 percent of before-tax income.

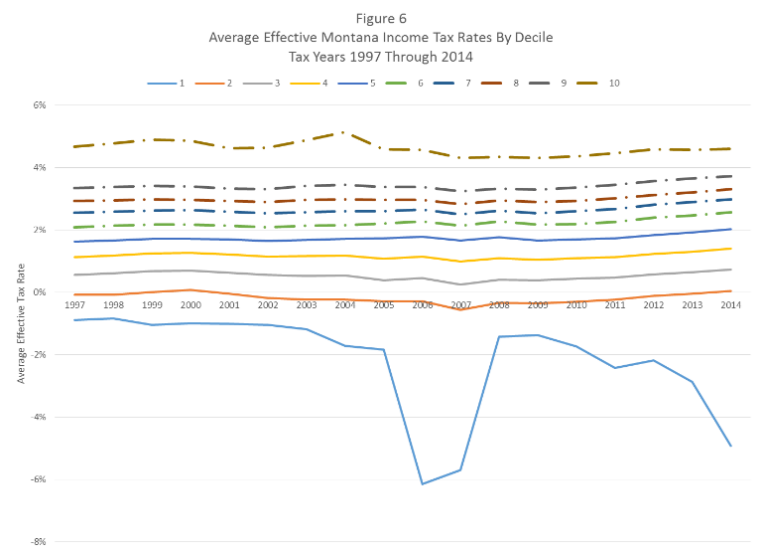



The combined tax liability of nearly every income decile has increased from tax year 1997 through 2014. Households in the top income decile reported the largest absolute increase in their combined tax liability. In 1997, the combined tax liability of households in the top decile was approximately $285.3 million. By 2014, the liability increased to $496.8 million, a 74 percent

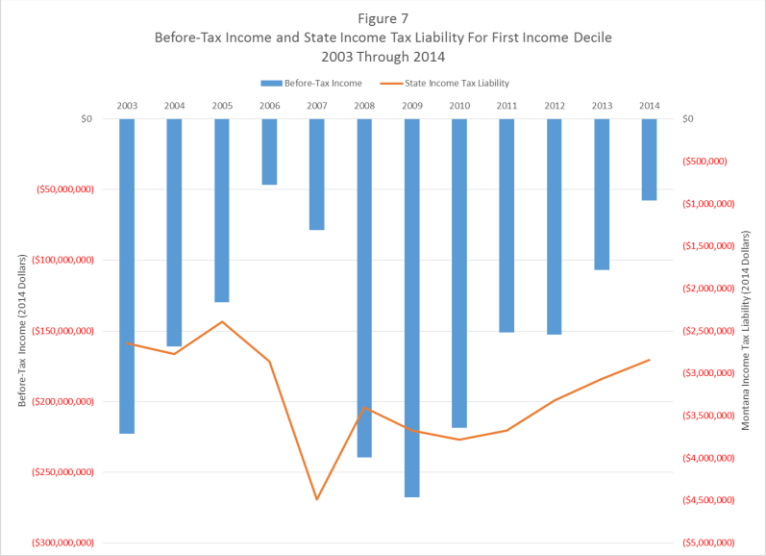
increase even after adjusting for inflation. The nine remaining income deciles had their combined tax liability increase by nearly $194.5 million during the same period, which was an increase of 80.5 percent.[5]

The progressive structure of Montana's income tax system can be seen when the tax liability of households in each income decile is compared to their before-tax income. Households in the top income decile had the largest income tax liability relative to their before-tax income from 1997 to 2014 (Figure 6). During the entire 17 year period, households in the top income decile had an income tax liability that equaled 4.6 percent of their combined before-tax income on average. At the other end of the income distribution, households in the first income decile had their before-tax income increase by nearly 2.2 percent on average from 1997 to 2014 as a result of a negative net income tax liability for every one of the 17 years. Overall, households in the bottom 50 percent of the income distribution had an income tax liability that was equal to 0.21 percent of their before-tax income on average for the 17 years, while households in the top 50 percent had a tax liability equal to 3.17 percent of their combined before-tax income.

[5] Tax liability estimates for the excluded years are available in Appendix A.

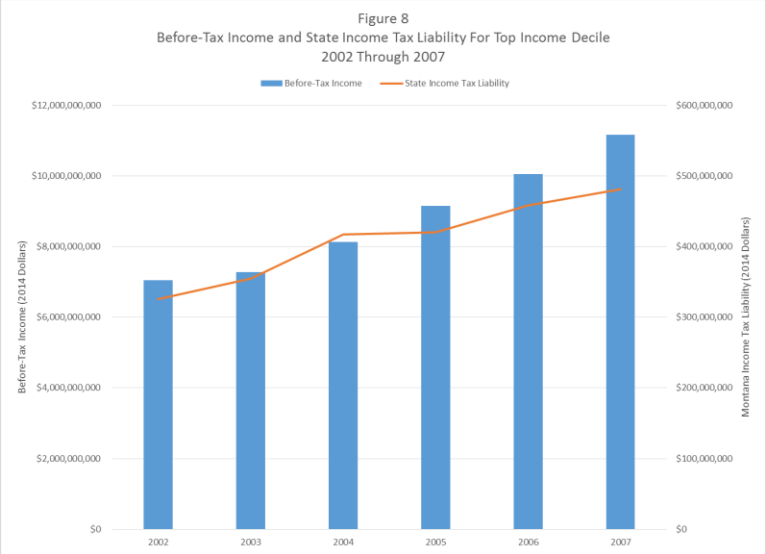



When looking at the average effective tax rate paid by each income decile, several issues warrant additional information. First, the average effective tax rate for households in the first income decile became more negative in tax years 2006 and 2007, and has been decreasing since 2010. The large change in effective tax rates for this income decile is the result of large changes in before-tax income losses, while the combined negative tax liability for the group is limited by size constraints on refundable tax credits. For example, the combined Montana income tax liability of the first income decile remained relatively unchanged from 2005 through 2008 at -$2.4 million, -$2.9 million, -$4.5 million and -$3.4 million respectively (Figure 7). The reported income for the same households changed significantly during those four years. In 2005, the reported income for the decile was -$129.9 million. By 2006 it was -$46.6 million, an increase of $83.3 million. For tax years 2007 and 2008, before-tax incomes were -$78.7 million and -$239.7 million. A similar change in before-tax incomes is also responsible for the changes in the effective tax rate in tax years 2011, 2013 and 2014.

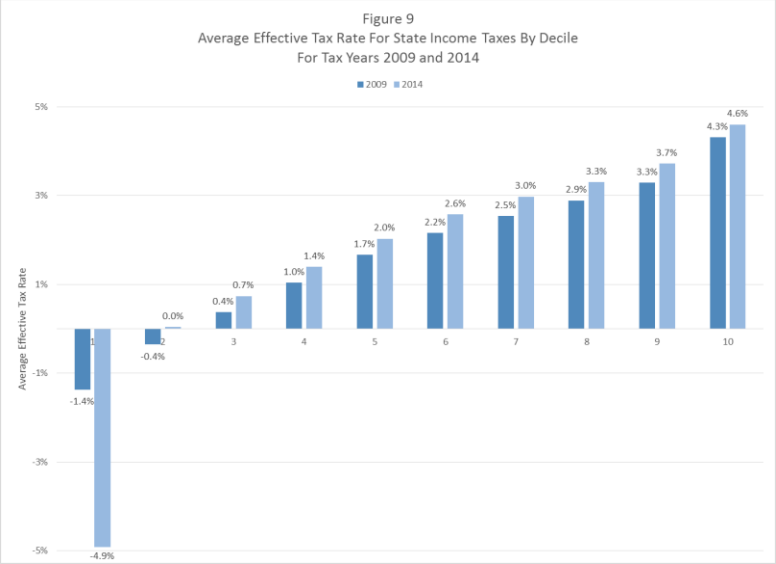



Second, the average effective tax rate paid by households in the top income decile decreased significantly from 2004 to 2005. In 2004, households in the top income decile had a tax liability equal to approximately 5.14 percent of their before-tax income. The share of income paid by the decile decreased in 2005 to only 4.59 percent, a decrease of more than 0.5 percentage points. The large decrease in the effective tax rate for this decile is due to the income tax changes made by the State of Montana that began in 2005. Before 2005, Montana's income tax system had 10 tax rates, which ranged from 2 percent to 11 percent for incomes above $80,300. The number of rates were reduced to seven in 2005, with a top rate of 6.9 percent applied to income above $13,900. In addition, a 2 percent credit was created for capital gains income, which primarily affects households in the top income decile.[6] That before-tax income continued to increase from 2004 to 2005, while the combined tax liability remained relatively unchanged, indicates that the tax changes were the likely cause of the tax rate change (Figure 8).

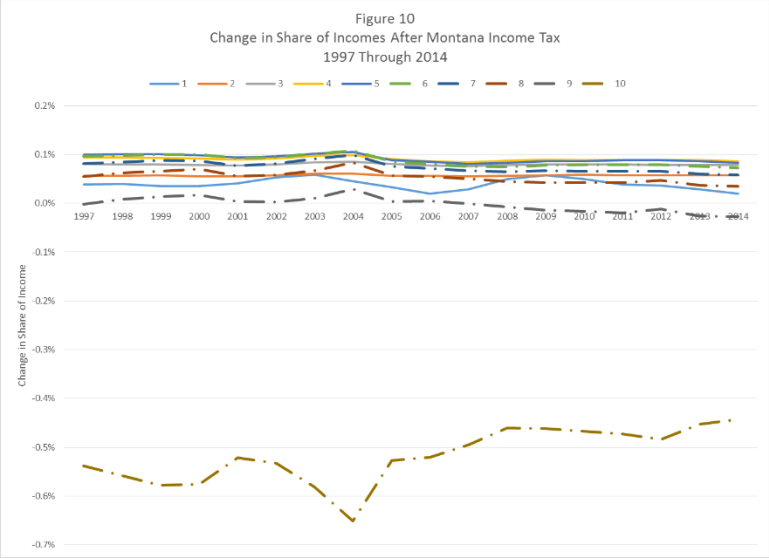
[6] Households in the top income decile reported approximately 79.5 percent of capital gains income that qualifies for the credit.




Finally, the average effective tax rate paid by taxpayer households has been gradually increasing since 2009. When combined, the average effective tax rate of all taxpayer households in Montana increased from 3.21 percent in 2009 to 3.56 percent in 2014, an increase of 0.36 percentage points. A similar pattern holds at the decile level. Households in the seventh and ninth income deciles had the largest increase in their effective tax rate, increasing by 0.44 and 0.43 percentage points respectively (Figure 9). Households in the top decile had the smallest increase, at 0.29 percentage points, while households in the first income decile had the only decrease in their tax rate, with a decrease of 3.54 percentage points. For every income decile except the first, the gradual increase in their effective tax rate is likely due to their incomes increasing faster than inflation, which pushes a larger share of their income into higher income tax brackets. For households in the first decile, the decrease in the effective tax rate is due to significant reductions in losses over the five year period.




Montana's progressive income tax reduces the top income decile's share of after-tax income, while increasing it for nearly every other income decile. Before taxes, households in the top income decile reported nearly $10.8 billion in before-tax income, which comprised 41.3 percent of the combined before-tax income of state residents (Figure 10). At the same time, however, households in the top income decile had a combined state tax liability of nearly $500 million, which comprised 53.2 percent of state resident's combined tax liability. As a result, the top income decile's share of after-tax income was 40.8 percent, approximately 0.44 percentage points less than its share of pre-tax income. The ninth income decile is the only other set of households with a lower share of after-tax income than before-tax income in 2014, with a difference of approximately 0.03 percentage points. The remaining eight income deciles had higher shares of after-tax income than before-tax income, with an average difference of 0.06 percentage points. The largest difference was for households in the fourth income decile, 0.9 percentage points.




While Montana's income tax system does reduce after-tax income inequality, its distributional impact has been getting smaller since 2005. Montana's income tax reduced the share of income reported by households in the top income decile by 0.57 percentage points on average from 1997 to 2004. Starting in 2005, however, the income share reduction began getting smaller over time, with an average reduction of only 0.48 percentage points for tax years 2005 through 2014. Tax year 2014 is also the year when the after-tax income share reduction was the smallest during the 18 year period, with a reduction of 0.44 percentage points. At the same time, the after-tax distributional impacts also began getting smaller after 2005, with a combined decrease in their income share from 0.07 percentage points on average each year to 0.06 points. The most likely explanation for the decrease in after-tax income compression is the income tax changes made by the state starting in 2005.

## B. Federal Income Tax

Like the State of Montana, the federal government of the United States currently places a broad-based tax on the incomes of citizens of the country. The United States' income tax has a

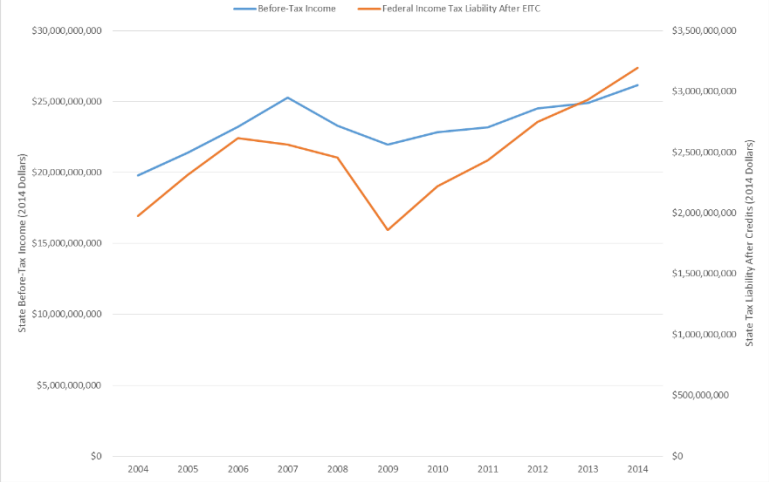
progressive rate structure with seven tax rates that range between 10 percent and 39.6 percent. For tax year 2014, the top rate of 39.6 percent applied to before-tax income above $406,751 for single filers and $457,601 for married filers. Taxpayers can deduct and exempt portions of their income from the tax. Taxpayers could claim a standard deduction of $6,200 for single filers or $12,400 for married filing jointly in tax year 2014. Taxpayers can also claim itemized deduction in lieu of the standard deduction if the taxpayer chooses to do so. Finally, a personal exemption of $3,950 could be claimed for households with federal adjusted gross incomes below the personal exemption phase-out thresholds.

While Montana income tax records contain federal adjusted gross income amounts for taxpayers, they do not contain each taxpayer's federal tax liability. As a result, federal tax liability estimates for Montana's full-year resident taxpayer households were generated using a federal tax liability model developed for each tax year. In the models, federal tax liability estimates were generated for residents using income and deduction data on state tax returns. Earned Income Tax Credit (EITC) qualification amounts were also estimated using the same income and deduction data. The model cannot adjust federal tax liability estimates for credits and deductions that are not also available on Montana's income tax form. As a result, the federal income tax estimates used in this paper may over, or under, estimate actual federal tax liabilities for some taxpayers. Finally, federal tax models are currently only available for tax years 2004 through 2014.

Like state income tax liabilities, the combined federal income tax liability of Montana's full-year residents follow a pattern similar to before-tax income. The combined federal income tax liability of Montana's taxpayer households increased from $1.98 billion in 2004 to its pre-recession peak of $2.62 billion in 2006 (Figure 11). Federal tax liabilities began decreasing in 2007 and continued until 2009. After reaching its recession low of $1.86 billion in 2009, the federal tax

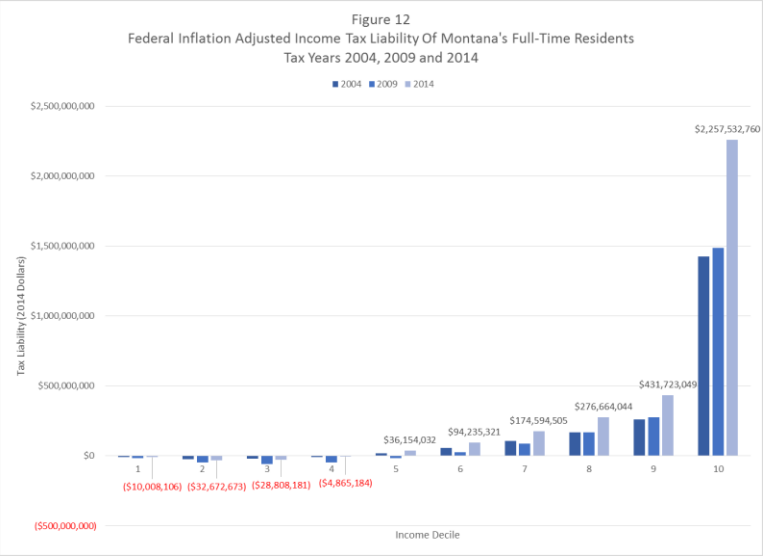
liability of Montana households began to recover and increased by 11.5 percent on average each year from 2010 through 2014. By 2014, the combined tax liability of households reached a peak of nearly $3.2 billion.

Figure 11
Montana Full-Year Resident Before-Tax Income and Tax Liability
2004 Through 2014



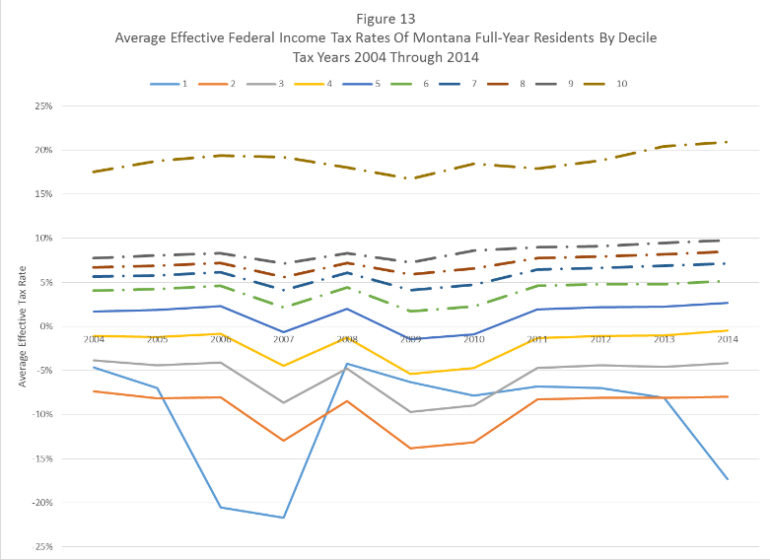

The decrease in federal tax liabilities from 2008 and 2009 are due, at least in part, to the decrease in before-tax income caused by the national recession. From 2007 to 2008, the combined value of before-tax incomes decreased by nearly $2 billion. A similar decrease of $1.37 billion also occurred from 2008 to 2009. However, part of the decline in federal tax liabilities for 2009 and 2010 were caused by the Making Work Pay Tax Credit, which provided a refundable tax credit of up to $400 for individuals and $800 for married taxpayers. The tax liability decrease in 2007 was not caused by a decrease in before-tax incomes, as inflation adjusted before-tax incomes actually increased from $23.3 billion to $25.3 billion. The decrease in tax liabilities in 2007 was primarily the result of the tax rebates associated with the Economic Stimulus Act of 2008, which provided a tax rebate based on each taxpayer's 2007 income taxes.

When broken down by income deciles, the distribution of federal tax liabilities is highly skewed, with households in the top decile accounting for more than two-thirds of the federal tax liability of Montana's residents. For tax year 2014, full-time Montana residents in the top income decile had a combined federal income tax liability of approximately $2.26 billion, which comprised nearly 71 percent of the combined federal tax liability of all ten deciles (Figure 12). The decile with the second largest tax liability was the ninth income decile, which had a combined federal tax liability of approximately $432 million for 2014, which is approximately 19 percent of the top decile's tax liability. The second income decile had the lowest federal income tax liability in 2014, with a combined liability of -$32.7 million. The bottom four income deciles each had a combined negative federal tax liability, with a combined tax liability of -$76.4 million in 2014.



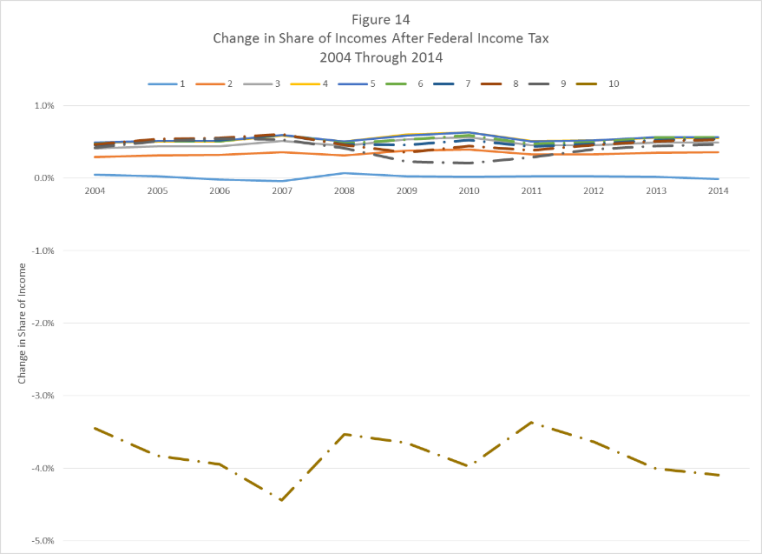

The progressive structure of federal income tax system can be seen when the tax liability of households in each income decile is compared to their before-tax income. From 2004 through 2014, households in the top income decile had the largest income tax liability relative to their before-tax income (Figure 13). Households in the top income decile had an income tax liability that equaled 18.7 percent of their combined before-tax income on average during the 11 year

period. At the other end of the income distribution, households in the first income decile had their after-tax income increased by 10 percent on average from 2004 to 2014 as a result of a negative net income tax liability for every examined tax year. Overall, households in the bottom 50 percent of the income distribution had a negative income tax liability that was equal to 5.2 percent of their before-tax income on average for the 11 years, while households in the top 50 percent had a tax liability equal to 8.8 percent of their combined before-tax income.




Average effective tax rates paid by households in most income deciles were lower during tax years 2007, 2009 and 2010 than other years. The differences in effective tax rates were larger for households in the lower income deciles. The large change in effective tax rates for the three years are primarily the result of two federal stimulus programs. The 2007 decrease is the result of the tax rebates provided under the federal Economic Stimulus Act. The 2009 and 2010 tax rate decreases were due to the Making Work Pay tax credit provided under the American Reinvestment and Recovery Act of 2009. As both the 2007 tax rebates and the Making Work Pay tax credits had size limits, the impacts on effective tax rates were larger for lower income households relative to upper income households.

The higher tax rates on households in the top income bracket reduces the share of after-tax income reported by households in the top income decile. Before taxes, households in the top income decile reported nearly $10.8 billion in before-tax income. After federal income taxes, households in Montana's top income decile reported a combined after-tax income of approximately $8.5 billion. Households in the top income decile reported more than 41 percent of Montana's before-tax income, but only 37.2 percent of after-tax income after federal income taxes. At the same time, households in the remaining 90 percent of the income distribution reported approximately $15.4 billion in before-tax income and $14.5 billion in after-tax income. Federal taxes increased the share of income reported by households in the first nine income deciles from 58.75 percent before taxes to 62.8 percent after taxes, an increase of 4.1 percentage points (Figure 14).



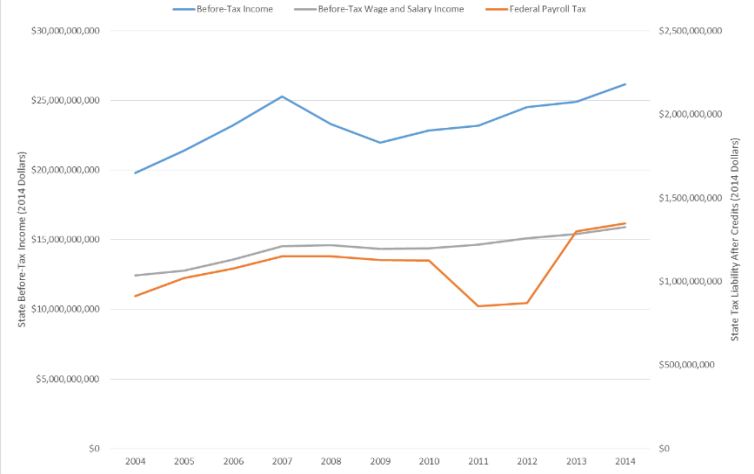

## C. Federal Payroll Tax

In addition to the federal income tax, the federal government also places several payroll taxes on the wages paid by employers and received by employees. The payroll taxes examined

here are those associated with the Federal Insurance Contributions Act, which applies a 12.4 percent tax on wages for funding Social Security and a 2.9 percent tax on all wages to fund the Medicare program. Both payroll taxes are divided evenly into employee and employer contribution portions and the Social Security portion of the tax only applies to income below a threshold that is updated each year ($117,000 in 2014). There is general agreement among economists that employees bear the employer contribution portion of these payroll taxes in the form of lower wages (Gruber, 1995 and OECD, 1990). Because of this, the payroll tax estimates in this paper only examine the distributional impacts of the employee portion of these taxes, as before-tax income estimates already include the employer portion of the payroll tax.

Montana's income tax records do not contain federal payroll tax amounts. As a result, payroll tax estimates for each of Montana's full-year residents were estimated using the federal income tax models and reported wage, salary and self-employment income amounts. The use of the federal income tax models also means that payroll tax estimates are only available for tax years 2004 through 2014.

Figure 15
Montana Full-Year Resident Before-Tax Income and Federal Payroll Tax Liability
2004 Through 2014



Federal payroll tax liabilities of Montana's full-year residents followed trends similar to that exhibited in before-tax income for most years. Both total before-tax income and payroll tax liabilities increased from 2004 through 2007 and decreased from 2007 to 2009 (Figure 15). For both of them, the amounts for 2014 were above their pre-recession levels. However, there were two periods where the two diverge.

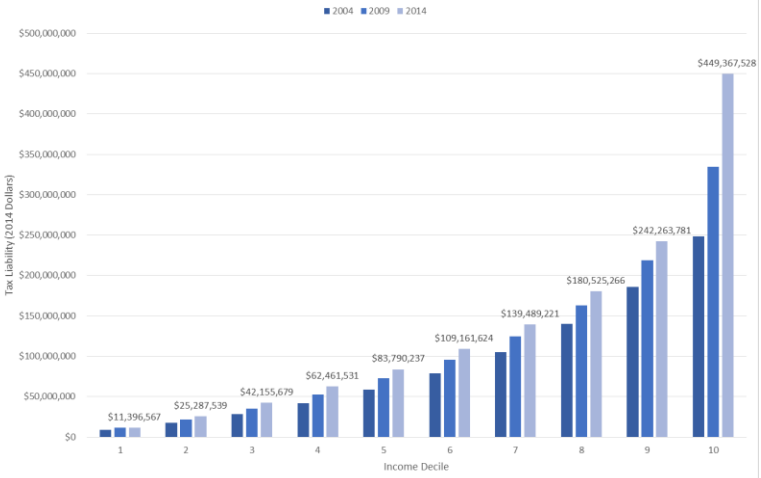
The first is during tax years 2006 through 2009. During these three years, before-tax income increased significantly from 2006 to 2007 and decreased significantly from 2007 to 2009. At the same time, however, the estimated payroll tax liability of the same people increased only modestly from 2006 to 2007, while remaining relatively unchanged from 2007 to 2009 (Figure 15). This difference between the two is the result of payroll taxes only being applied to wage, salary and self-employment income. When payroll tax liabilities are compared to wage and salary income only, the divergence disappears.

The other divergence between payroll tax liabilities and total before-tax income occurs in tax years 2011 and 2012. From 2010 to 2011, before-tax incomes in Montana increased from $22.8 billion to $23.2 billion (Figure 15). For the same years, however, the payroll tax liability of the same taxpayers decreased from $1.1 billion to $852 million. Two years later, payroll tax liabilities increased significantly, moving from $871 million to $1.3 billion, an increase of approximately $400 million. At the same time, total before-tax incomes increased by only $400 million. The large decrease in payroll tax liability relative to total before-tax incomes is the result of the 2010 Tax Relief Act's temporary reduction in the payroll tax rate of 6.2 percent to 4.2 percent for employees.

Households in the upper income deciles paid more in payroll taxes than households lower in the income distribution. In tax year 2014, households in the top income decile had a payroll tax

liability of approximately $449 million (Figure 16). At the same time, households in the first five income deciles had a combined tax liability of only $225 million. The disproportionately large share of payroll taxes for the top income decile is not surprising, given that the same households also reported a disproportionately large share of wage and salary income. However, while the top decile does pay a large portion of payroll taxes, the proportion is not as skewed as state and federal income taxes. The distribution of payroll taxes also differs from the other income taxes in the lower income deciles. For state and federal income taxes, households in the bottom income deciles had negative income tax liabilities, indicating that their after-tax incomes were higher than their before-tax incomes. This is not the case for the payroll taxes, however, as no decile had a negative tax liability.

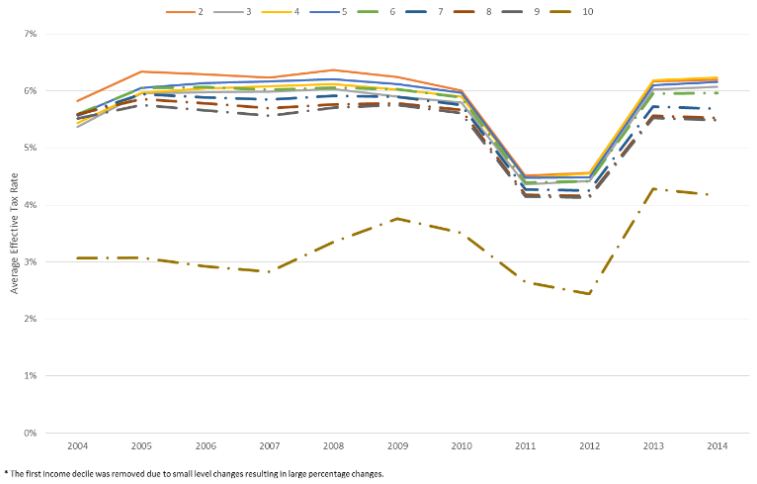
Figure 16
Federal Inflation Adjusted Payroll Tax Liability Of Montana's Full-Time Residents
Tax Years 2004, 2009 and 2014




With its single tax rate for all income below a threshold, the average effective tax rate for payroll taxes has been relatively uniform for most income deciles since at least 2004. In tax year 2014, households in the second through sixth income deciles had average effective tax rates between 6.0 and 6.2 percent of total before-tax income (Figure 17). For households in the seventh, eighth and ninth deciles, the average effective tax rate was between 5.5 and 5.7 percent. The only

deciles with effective payroll tax rates that fall outside the 5.5 and 6.2 percent rage was the first and tenth deciles. Due to large income losses from other income sources, households in the first decile had an average tax rate equal to 19.7 percent. The top income decile had the lowest effective tax rate in 2014, at 4.2 percent. The below average tax rate for this decile is due to the relatively large amount of income above the payroll tax income threshold, as well as income from sources not subject to the payroll tax. Overall, federal payroll tax rates deviate from the pattern of the previous two taxes, with lower income households having higher effective tax rates relative to higher income households.

Figure 17
Average Effective Federal Payroll Tax Rates Of Montana Full-Year Residents By Decile
Tax Years 2004 Through 2014

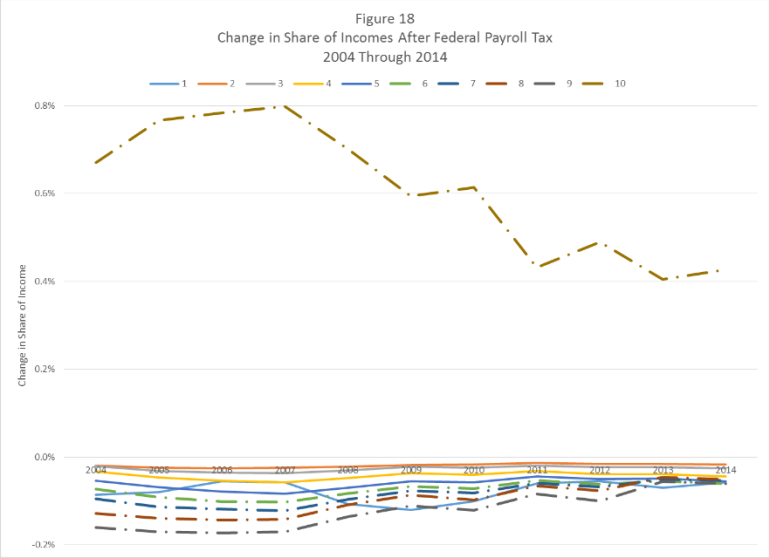



* The first income decile was removed due to small level changes resulting in large percentage changes.

For most income deciles, the effective payroll tax rate has remained unchanged for most tax years from 2004 through 2014. Households in the second through the ninth income decile paid an average effective tax rate of 6 percent in tax year 2005. The tax rate for the same deciles had decreased to 5.9 percent in 2014, a change of 0.1 percentage points. The only large change for most deciles was during tax years 2011 and 2012, which was due to the temporary rate reduction mentioned previously.

The only income deciles with large rate changes were households in the first and last income deciles. The effective tax rate paid by households in the first decile changed significantly from 2004 through 2014, with effective rates that ranged between 21.4 percent in 2006 to 4.3 percent in 2009. These large rate changes are due to the large changes in non-taxed income and income losses reported by these households over time. Limiting the income to only wage and salary income results in a stable effective tax rate between 8.3 percent and 8.6 percent of wage and salary income.

The tenth income decile also had modest effective rate changes over the examined 11 year period. In tax years 2004 and 2005, households in the top decile had an average effective rate of 3.1 percent. By 2009, the effective rate had increased to 3.8 percent. In 2012, the deciles' tax rate reached an all-time low of 2.4 percent. However, the average tax rate reached their highest levels of 4.2 and 4.3 percent in 2014 and 2013 respectively. The gradual decrease in effective tax rates from 2004 to 2007, and the rapid increase in rates from 2007 to 2009, are due to large income increases from non-taxable sources in 2004 through 2007 and decreases in 2007 through 2009. The large increase in rates in 2013 and 2014 are due to the Additional Medicare Tax of 0.9 percentage points that was created by the Patient Protection and Affordable Care Act in 2010.

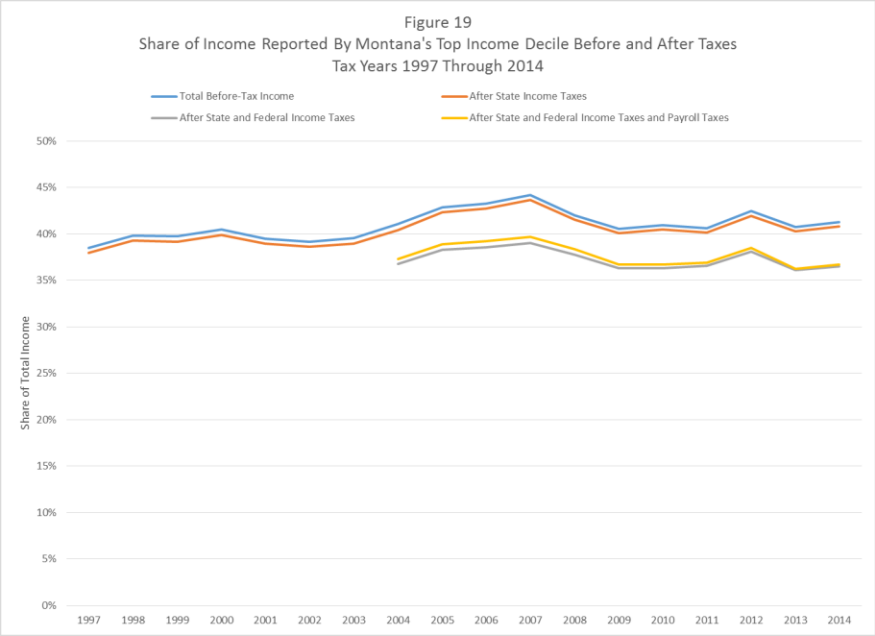



The below average effective tax rate for higher income households means that payroll taxes actually increase the income gap between high and low income households. For tax year 2014, payroll taxes increased the share of after-tax income reported by households in the top income decile by 0.43 percentage points (Figure 18). The largest impact of payroll taxes on the top income decile was 2007, when payroll taxes increased the share of after-tax income reported by the top decile by 0.8 percentage points. For the remaining income deciles, payroll taxes reduced their share of after-tax income by between 0.02 and 0.06 percentage points in 2014. Overall, payroll taxes increased the share of after-tax income reported by households in the top income decile, but their redistributive impact has been declining over the previous 7 years.

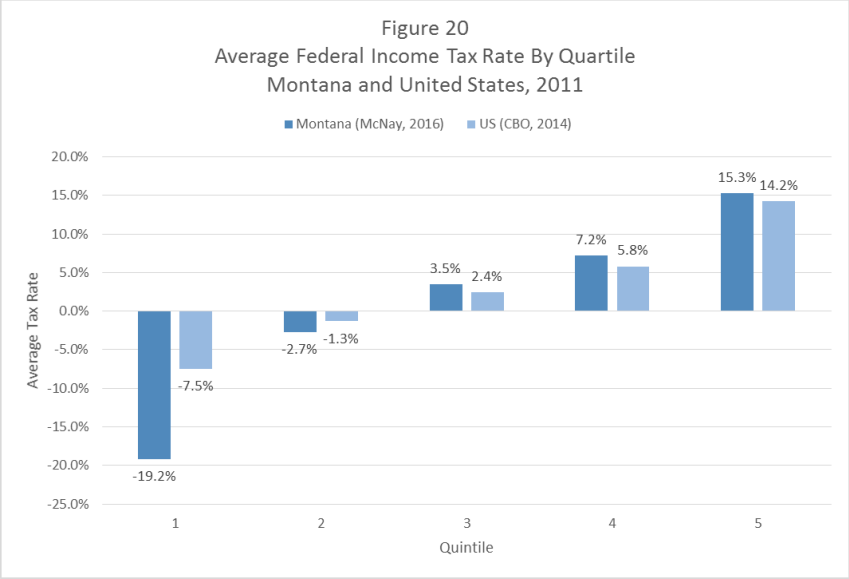
## V. DISTRIBUTIONAL IMPACT COMPARISONS

State and federal income and payroll taxes in Montana overall reduce the amount of income inequality within the state. The federal income tax has the largest redistributive impact, reducing the share of income reported by households in the top income decile by about 5 percentage points (Figure 19). Montana's income tax system also reduces after-tax income inequality, but to a

smaller degree than federal income taxes. From 1997 to 2014, Montana income tax reduced the share of income reported by the top income decile by half a percentage point on average each year. Finally, payroll taxes slightly increase after-tax income inequality, increasing the share of income reported by the top decile by 0.6 percentage points on average from 2004 to 2014.



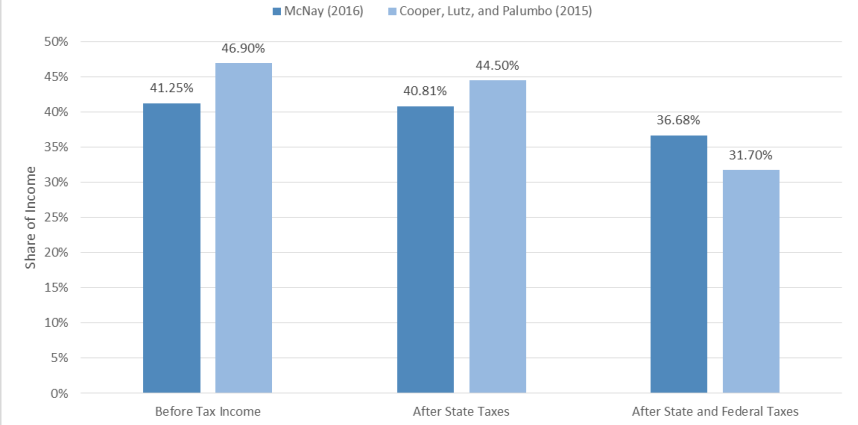

The distribution of federal taxes in Montana appear to be similar to the distribution of households reported by the CBO for the United States as a whole. According to the CBO's estimates, households in the bottom two income quintiles had negative average federal income taxes, with average effective rates of -7.5 and -1.3 percent in 2011 (Figure 20). For Montana, households in the bottom two quintiles also had combined negative tax liabilities. At the same time, the CBO estimated that the top income quintile had the highest average effective tax rate of 14.2 percent. The average effective tax rate for Montana's top quintile was 15.3 percent in 2011.




The differences between the CBO's estimates and the estimates for Montana could be due to actual economic differences, or they could be due to methodological differences. For example, decile estimates provided in this paper are based on taxpayer households, regardless of the size of the household. The CBO quintile estimates are based on size adjusted households. As a result, each of the CBO's quintiles have an approximately equal number of people, with a different number of households. The CBO estimates also exclude households with negative incomes from the lowest income group, while they are included in the Montana estimates. This exclusion of low income households would explain the large difference in tax rates for the lowest income quintile.

At the state level, Cooper, Lutz and Palumbo (2015) estimate that households in Montana's top income decile had 46.9 percent of money income (Figure 21). They also estimate that state taxes reduce the top decile's share of money income by 2.4 percentage points. With federal taxes, the share drops even further to 31.7 percentage points. Overall, the before tax estimates provided by Copper, Lutz and Paulmubo (2015) are higher than the ones presented in this paper, while their impacts of state and federal taxes are larger.

Figure 21
Montana Top Income Decile Before and After Tax Income Estimates




Some of the differences between the estimates in this paper and those in other papers is likely due to differences in methodologies. Like the CBO, Cooper, Lutz and Palumbo (2015) also adjust their household estimates for family size. They also exclude elderly households. Households with negative gross incomes also appear to be excluded from their estimates as well. There are also differences in the taxes that are measured between the two papers. This paper excludes the employer portion of payroll taxes and does not include other taxes, such as the gasoline tax. Cooper, Lutz and Palumbo (2015) include employer contributions to social insurance, as well as each households' gasoline tax burden.

## VI. CONCLUSION

Before-tax income in Montana is unequally distributed. In addition, the share of before-tax income reported by the top income decile has increased over time. Starting in 1997 and before the national recession in 2008, the top 10 percent of households in Montana reported approximately 40.75 percent of before-tax income in Montana on average each year. By 2014, households in the top income decile reported 41.25 percent of before-tax income, an increase of 0.5 percentage points from its pre-recession average. However, state and federal taxes change the distribution of income for Montana's residents.

Montana's current tax system taxes higher incomes at higher rates. This results in larger differences between before-tax and after-tax income for higher income households relative to lower income households. On average, from tax year 1997 through 2014, Montana's income tax system reduced the incomes of households in the top income decile by 4.6 percent. At the same time, Montana's income tax system reduced the incomes of all income deciles by only 3.4 percent. The higher effective tax rate for the top income decile reduced their share of income from 41.25 percent before taxes to 40.8 percent after taxes in 2014.

The federal income and payroll tax systems also reduce the share of income available to households in the top income decile. In 2014, households in Montana paid an average of 17.35 percent of their incomes in federal payroll and income taxes. The top income decile paid an average of 25.1 percent. As a result, the share of income available to households in the top income decile decreased from 41.25 percent before taxes to 37.4 percent after taxes.

Overall, state and federal income and payroll taxes reduced the share of income reported by the top income decile by 4.5 percentage points, which increased the share of after-tax income available to households in the bottom nine income deciles. The distributional impacts of federal and state income and payroll taxes have not changed significantly over the 11 years examined for all three income types. From 2004 through 2014, the distributional impacts of state and federal taxes ranged between 3.6 and 4.6 percentage points. The distributional impact of state and federal taxes generally follow business cycle changes, with increases in the distributional impacts during periods of growing before-tax incomes, and smaller impacts during periods of before-tax income decreases.

## DISCLAIMERS

All opinions and conclusions expressed here are solely those of the author and are not necessarily representative of the views of Montana's Department of Revenue or any other state agency.

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## Appendix A: MONTANA INCOME TAX DATA

Table A1: Taxable Incomes and Tax Liabilities of Montana's Households, 2014 Inflation Adjusted Dollars

| Tax Year | First Decile | | | | Second Decile | | | | Third Decile | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Before-Tax Income | State Income Tax Liability | Federal Income Tax Liability | Federal Payroll Tax Liability | Before-Tax Income | State Income Tax Liability | Federal Income Tax Liability | Federal Payroll Tax Liability | Before-Tax Income | State Income Tax Liability | Federal Income Tax Liability | Federal Payroll Tax Liability |
| 1997 | ($139,974,504) | ($1,242,310) | | | $252,840,564 | ($197,019) | | | $444,268,304 | $2,512,174 | | |
| 1998 | ($153,668,835) | ($1,282,049) | | | $265,552,279 | ($193,101) | | | $465,906,706 | $2,816,670 | | |
| 1999 | ($131,348,878) | ($1,376,879) | | | $278,235,258 | $9,611 | | | $483,438,742 | $3,260,554 | | |
| 2000 | ($141,680,373) | ($1,417,900) | | | $287,951,687 | $202,480 | | | $500,046,957 | $3,490,340 | | |
| 2001 | ($165,456,211) | ($1,679,110) | | | $286,041,689 | ($121,006) | | | $502,123,485 | $3,161,610 | | |
| 2002 | ($210,582,267) | ($2,215,932) | | | $283,048,122 | ($514,792) | | | $498,907,753 | $2,764,478 | | |
| 2003 | ($222,946,019) | ($2,645,045) | | | $289,096,809 | ($671,909) | | | $507,235,199 | $2,653,334 | | |
| 2004 | ($161,011,581) | ($2,772,119) | ($7,504,465) | $8,696,799 | $300,665,216 | ($721,566) | ($22,210,750) | $17,517,066 | $526,224,031 | $2,839,964 | ($20,291,904) | $28,258,285 |
| 2005 | ($129,894,043) | ($2,392,628) | ($9,080,565) | $10,090,818 | $317,143,562 | ($923,746) | ($25,844,037) | $20,081,429 | $549,033,067 | $2,082,020 | ($24,260,691) | $32,700,412 |
| 2006 | ($46,647,343) | ($2,863,997) | ($9,570,870) | $10,001,991 | $343,329,851 | ($990,955) | ($27,600,216) | $21,603,042 | $592,850,759 | $2,741,887 | ($24,144,481) | $35,407,464 |
| 2007 | ($78,722,466) | ($4,486,015) | ($17,099,475) | $10,249,513 | $353,033,084 | ($1,998,401) | ($45,657,691) | $22,013,149 | $621,849,121 | $1,543,704 | ($53,778,919) | $37,235,337 |
| 2008 | ($239,711,091) | ($3,400,822) | ($10,171,333) | $11,721,980 | $346,976,720 | ($1,150,574) | ($29,353,760) | $22,088,692 | $612,039,086 | $2,485,749 | ($29,238,603) | $36,942,157 |
| 2009 | ($267,608,584) | ($3,677,047) | ($16,838,627) | $11,422,361 | $340,923,495 | ($1,219,531) | ($47,176,099) | $21,291,954 | $595,695,354 | $2,245,367 | ($57,781,911) | $35,126,033 |
| 2010 | ($218,449,464) | ($3,784,607) | ($17,087,402) | $11,037,634 | $359,113,011 | ($1,065,644) | ($47,156,366) | $21,559,419 | $619,487,090 | $2,756,558 | ($55,677,828) | $35,881,220 |
| 2011 | ($151,210,987) | ($3,675,949) | ($10,253,676) | $7,797,182 | $361,278,014 | ($874,897) | ($30,032,516) | $16,292,480 | $621,962,642 | $2,939,509 | ($29,385,106) | $27,098,549 |
| 2012 | ($152,627,622) | ($3,320,247) | ($10,658,374) | $7,707,813 | $374,064,693 | ($411,350) | ($30,266,385) | $17,054,700 | $637,698,854 | $3,698,774 | ($28,088,621) | $28,153,943 |
| 2013 | ($106,935,545) | ($3,067,753) | ($8,682,101) | $10,943,516 | $388,869,082 | ($177,778) | ($31,590,720) | $23,978,451 | $664,907,339 | $4,291,664 | ($30,435,100) | $40,062,982 |
| 2014 | ($57,786,373) | ($2,840,281) | ($10,008,106) | $11,396,567 | $408,323,392 | $168,963 | ($32,672,673) | $25,287,539 | $694,747,874 | $5,105,500 | ($28,808,181) | $42,155,679 |

Table A2: Taxable Incomes and Tax Liabilities of Montana's Households, 2014 Inflation Adjusted Dollars

| Tax Year | Fourth Decile | | | | Fifth Decile | | | | Sixth Decile | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Before-Tax Income | State Income Tax Liability | Federal Income Tax Liability | Federal Payroll Tax Liability | Before-Tax Income | State Income Tax Liability | Federal Income Tax Liability | Federal Payroll Tax Liability | Before-Tax Income | State Income Tax Liability | Federal Income Tax Liability | Federal Payroll Tax Liability |
| 1997 | $654,454,369 | $7,330,854 | | | $893,825,006 | $14,513,449 | | | $1,195,215,192 | $24,908,655 | | |
| 1998 | $684,378,832 | $8,030,138 | | | $933,943,412 | $15,486,211 | | | $1,251,222,149 | $26,635,623 | | |
| 1999 | $708,664,938 | $8,788,260 | | | $967,311,694 | $16,583,721 | | | $1,297,996,767 | $28,152,558 | | |
| 2000 | $731,269,917 | $9,205,418 | | | $995,685,726 | $17,130,409 | | | $1,339,992,388 | $28,988,512 | | |
| 2001 | $736,983,082 | $8,935,597 | | | $998,376,192 | $16,933,035 | | | $1,336,228,555 | $28,450,709 | | |
| 2002 | $734,302,121 | $8,402,902 | | | $996,108,905 | $16,346,154 | | | $1,332,324,422 | $27,720,591 | | |
| 2003 | $745,499,882 | $8,609,319 | | | $1,013,121,204 | $16,930,095 | | | $1,355,589,525 | $28,855,776 | | |
| 2004 | $773,634,029 | $9,158,169 | ($8,204,339) | $42,070,018 | $1,050,596,929 | $17,948,345 | $18,018,051 | $58,601,269 | $1,407,996,409 | $30,307,126 | $57,128,060 | $78,770,607 |
| 2005 | $803,114,218 | $8,567,323 | ($9,766,467) | $47,923,232 | $1,094,345,797 | $18,882,296 | $20,501,922 | $66,259,178 | $1,472,155,642 | $32,441,859 | $62,228,815 | $89,014,606 |
| 2006 | $863,434,211 | $9,919,094 | ($7,068,161) | $52,149,525 | $1,176,269,612 | $21,024,829 | $26,734,911 | $72,146,122 | $1,577,720,217 | $35,742,022 | $72,568,430 | $95,718,521 |
| 2007 | $916,434,565 | $9,000,310 | ($41,210,925) | $55,733,901 | $1,255,016,765 | $20,917,065 | ($7,911,558) | $77,371,968 | $1,690,173,335 | $36,159,024 | $36,077,253 | $101,793,192 |
| 2008 | $899,323,695 | $9,886,581 | ($11,270,975) | $55,021,682 | $1,226,990,356 | $21,563,145 | $24,143,921 | $76,125,614 | $1,644,342,654 | $37,350,830 | $72,628,315 | $99,523,959 |
| 2009 | $871,816,740 | $9,066,812 | ($46,844,982) | $52,485,858 | $1,186,190,597 | $19,743,247 | ($17,095,912) | $72,556,993 | $1,583,637,878 | $34,216,956 | $27,517,115 | $95,409,446 |
| 2010 | $898,661,662 | $9,874,207 | ($42,379,858) | $53,033,588 | $1,220,370,797 | $20,749,853 | ($10,972,791) | $72,849,349 | $1,632,583,115 | $35,764,010 | $37,058,282 | $96,129,825 |
| 2011 | $904,295,732 | $10,203,278 | ($11,959,229) | $40,433,994 | $1,232,591,577 | $21,307,523 | $23,820,513 | $55,103,090 | $1,657,251,553 | $37,475,196 | $76,016,716 | $72,895,552 |
| 2012 | $922,074,946 | $11,283,904 | ($10,241,288) | $41,934,009 | $1,257,445,815 | $22,954,266 | $27,607,058 | $56,447,644 | $1,692,448,020 | $40,348,186 | $81,266,045 | $74,647,066 |
| 2013 | $962,013,016 | $12,488,883 | ($10,039,454) | $59,513,425 | $1,311,286,366 | $25,262,653 | $29,712,221 | $79,977,445 | $1,763,378,061 | $43,425,705 | $84,840,598 | $105,034,887 |
| 2014 | $1,001,830,433 | $13,970,184 | ($4,865,184) | $62,461,531 | $1,361,905,473 | $27,625,978 | $36,154,032 | $83,790,237 | $1,830,795,091 | $47,089,714 | $94,235,321 | $109,161,624 |

| Table A3: Taxable Incomes and Tax Liabilities of Montana's Households, 2014 Inflation Adjusted Dollars | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tax Year | Seventh Decile | | | | Eighth Decile | | | | Ninth Decile | | | |
| | Before-Tax Income | State Income Tax Liability | Federal Income Tax Liability | Federal Payroll Tax Liability | Before-Tax Income | State Income Tax Liability | Federal Income Tax Liability | Federal Payroll Tax Liability | Before-Tax Income | State Income Tax Liability | Federal Income Tax Liability | Federal Payroll Tax Liability |
| 1997 | $1,585,823,522 | $40,274,617 | | | $2,086,590,550 | $61,036,326 | | | $2,775,939,676 | $92,563,543 | | |
| 1998 | $1,663,290,012 | $42,979,832 | | | $2,189,908,195 | $64,554,636 | | | $2,928,198,995 | $98,678,095 | | |
| 1999 | $1,726,169,845 | $45,229,648 | | | $2,276,144,761 | $67,976,947 | | | $3,036,819,248 | $103,420,698 | | |
| 2000 | $1,790,998,454 | $47,090,813 | | | $2,366,284,135 | $70,123,098 | | | $3,165,289,870 | $107,431,645 | | |
| 2001 | $1,781,993,354 | $46,157,362 | | | $2,353,039,696 | $68,938,654 | | | $3,141,355,939 | $104,449,731 | | |
| 2002 | $1,777,929,426 | $44,836,702 | | | $2,360,391,265 | $68,195,407 | | | $3,162,348,961 | $104,362,286 | | |
| 2003 | $1,806,623,671 | $46,364,031 | | | $2,398,662,729 | $71,100,474 | | | $3,217,807,146 | $109,448,558 | | |
| 2004 | $1,881,948,080 | $49,071,747 | $106,017,702 | $104,794,620 | $2,503,044,871 | $74,420,769 | $166,989,426 | $139,843,453 | $3,368,636,647 | $116,095,193 | $261,771,543 | $185,873,829 |
| 2005 | $1,968,422,356 | $51,187,654 | $114,268,503 | $117,062,430 | $2,620,124,597 | $77,422,747 | $181,218,044 | $153,485,128 | $3,525,026,464 | $119,105,797 | $284,322,296 | $202,835,025 |
| 2006 | $2,108,659,975 | $55,746,767 | $129,766,178 | $124,111,403 | $2,793,594,228 | $82,717,411 | $200,494,637 | $161,480,311 | $3,761,000,754 | $126,778,774 | $311,773,555 | $212,934,396 |
| 2007 | $2,265,825,131 | $56,699,469 | $93,786,944 | $132,592,085 | $3,014,695,712 | $85,038,153 | $168,745,485 | $171,698,486 | $4,069,525,654 | $131,480,439 | $291,180,313 | $226,383,422 |
| 2008 | $2,195,249,408 | $57,462,513 | $133,411,579 | $129,830,751 | $2,915,490,034 | $85,646,048 | $210,504,506 | $167,937,739 | $3,927,034,226 | $130,719,195 | $326,454,278 | $224,001,512 |
| 2009 | $2,115,257,947 | $53,639,437 | $87,663,212 | $124,789,414 | $2,814,866,120 | $81,341,874 | $166,920,697 | $162,782,454 | $3,803,423,881 | $125,182,974 | $276,763,295 | $218,752,020 |
| 2010 | $2,179,680,386 | $56,480,992 | $103,325,915 | $125,413,607 | $2,892,832,905 | $84,852,551 | $189,549,742 | $164,014,694 | $3,895,560,890 | $130,546,103 | $336,472,200 | $218,616,831 |
| 2011 | $2,218,338,662 | $59,208,411 | $142,579,993 | $94,771,446 | $2,949,149,885 | $88,747,249 | $229,034,911 | $123,086,454 | $3,975,232,695 | $136,765,230 | $356,918,034 | $164,794,056 |
| 2012 | $2,270,689,268 | $63,686,995 | $151,143,487 | $96,641,517 | $3,025,952,572 | $94,438,118 | $239,588,281 | $125,689,425 | $4,080,400,265 | $145,189,574 | $371,092,952 | $168,636,753 |
| 2013 | $2,367,676,158 | $68,336,721 | $162,856,139 | $135,527,138 | $3,152,772,144 | $101,207,589 | $258,524,578 | $175,296,587 | $4,252,515,028 | $155,028,791 | $403,277,008 | $235,101,806 |
| 2014 | $2,451,953,156 | $72,928,410 | $174,594,505 | $139,489,221 | $3,266,641,881 | $107,785,908 | $276,664,044 | $180,525,266 | $4,416,100,587 | $164,345,919 | $431,723,049 | $242,263,781 |

| Table A4: Taxable Incomes and Tax Liabilities of Montana's Households, 2014 Inflation Adjusted Dollars | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tax Year | Tenth Decile | | | | Top 1 Percent | | | | Statewide Total | | | |
| | Before-Tax Income | State Income Tax Liability | Federal Income Tax Liability | Federal Payroll Tax Liability | Before-Tax Income | State Income Tax Liability | Federal Income Tax Liability | Federal Payroll Tax Liability | Before-Tax Income | State Income Tax Liability | Federal Income Tax Liability | Federal Payroll Tax Liability |
| 1997 | $6,100,893,047 | $285,250,517 | | | $1,989,676,468 | $112,926,574 | | | $15,849,875,726 | $526,950,806 | | |
| 1998 | $6,768,568,567 | $322,909,731 | | | $2,328,819,385 | $131,216,862 | | | $16,997,300,312 | $580,615,786 | | |
| 1999 | $7,012,676,379 | $342,606,828 | | | $2,404,810,350 | $142,270,343 | | | $17,656,108,754 | $614,651,946 | | |
| 2000 | $7,506,278,351 | $365,057,856 | | | $2,667,245,419 | $155,156,785 | | | $18,542,117,112 | $647,302,671 | | |
| 2001 | $7,162,865,002 | $330,904,760 | | | $2,476,294,635 | $136,660,044 | | | $18,133,550,783 | $606,131,342 | | |
| 2002 | $7,040,475,263 | $325,938,461 | | | $2,346,026,268 | $130,681,243 | | | $17,975,253,971 | $595,836,257 | | |
| 2003 | $7,274,435,867 | $354,640,585 | | | $2,476,288,763 | $147,022,191 | | | $18,385,126,013 | $635,285,218 | | |
| 2004 | $8,123,153,240 | $417,390,952 | $1,425,153,550 | $248,701,005 | $2,997,943,987 | $187,381,089 | $779,278,888 | $28,823,317 | $19,774,887,871 | $713,738,580 | $1,976,866,874 | $913,126,951 |
| 2005 | $9,158,325,191 | $420,002,379 | $1,720,314,958 | $281,176,524 | $3,631,730,624 | $189,191,100 | $962,795,047 | $37,511,839 | $21,377,796,851 | $726,375,701 | $2,313,902,778 | $1,020,628,782 |
| 2006 | $10,044,105,416 | $457,982,189 | $1,944,707,703 | $293,171,530 | $4,071,082,553 | $208,364,558 | $1,093,903,702 | $38,761,568 | $23,214,317,680 | $788,798,021 | $2,617,661,686 | $1,078,724,305 |
| 2007 | $11,160,428,982 | $481,063,034 | $2,138,956,045 | $316,022,816 | $4,694,721,879 | $220,581,690 | $1,240,902,190 | $45,873,694 | $25,268,259,883 | $815,416,782 | $2,563,087,472 | $1,151,093,869 |
| 2008 | $9,784,244,532 | $425,190,535 | $1,766,486,584 | $327,468,149 | $3,743,159,691 | $179,225,907 | $949,647,416 | $44,944,167 | $23,311,979,620 | $765,753,200 | $2,453,594,512 | $1,150,662,235 |
| 2009 | $8,900,601,819 | $383,729,219 | $1,486,741,546 | $334,210,729 | $3,220,350,132 | $155,094,672 | $794,613,740 | $47,565,528 | $21,944,805,247 | $704,269,308 | $1,859,868,334 | $1,128,827,262 |
| 2010 | $9,343,541,865 | $407,581,655 | $1,727,132,292 | $328,177,156 | $3,494,690,209 | $169,142,827 | $867,395,490 | $46,406,106 | $22,823,382,257 | $743,755,678 | $2,220,264,186 | $1,126,713,323 |
| 2011 | $9,418,716,739 | $419,311,761 | $1,686,586,239 | $249,668,617 | $3,410,452,172 | $166,776,048 | $850,438,327 | $38,027,171 | $23,187,606,512 | $771,407,311 | $2,433,325,879 | $851,941,420 |
| 2012 | $10,404,517,055 | $477,323,699 | $1,957,953,310 | $253,825,658 | $4,145,891,337 | $207,559,679 | $1,066,830,951 | $39,314,894 | $24,512,663,866 | $855,191,919 | $2,749,396,465 | $870,738,528 |
| 2013 | $10,152,821,811 | $463,619,048 | $2,074,842,894 | $434,203,461 | $3,583,925,210 | $177,383,170 | $1,046,744,454 | $109,613,553 | $24,909,303,460 | $870,415,523 | $2,933,306,063 | $1,299,639,698 |
| 2014 | $10,796,450,778 | $496,750,933 | $2,257,532,760 | $449,367,528 | $3,860,498,834 | $189,161,468 | $1,133,285,585 | $112,395,203 | $26,170,962,292 | $932,931,228 | $3,194,549,567 | $1,345,898,973 |